

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A process for preparing a compound having a nonaromatic C-C double or triple bond (compound A) from another compound or a mixture of other compounds having a nonaromatic C-C double or triple bond (compound B) by metathesis, which comprises bringing the compound (B) into contact with a heterogeneous catalyst comprising carbides or oxycarbides of a transition element at from 50 to 500°C.
2. (Original) A process as claimed in claim 1, wherein the compound (B) is selected from the group consisting of C2-C12-olefins, substituted C2-C12-olefins and mixtures of the abovementioned compounds.
3. (Currently Amended) A process as claimed in any of the preceding claims Claim 1, wherein the heterogeneous catalyst is selected from the group consisting of molybdenum carbide, molybdenum oxycarbide, tungsten carbide, tungsten oxycarbide and mixtures of the abovementioned compounds.
4. (Currently Amended) A process as claimed in any of the preceding claims Claim 1, wherein the heterogeneous catalyst used is a supported catalyst in which a carbide or oxycarbide of a transition element forms the an active component (activator A) which has been applied to a customary support (support S).
5. (Original) A process as claimed in claim 4, wherein the proportion of activator (A) in the supported catalyst is from 0.1 to 30% by weight.
6. (Currently Amended) A process as claimed in claim 4 or 5, wherein the heterogeneous catalyst used is a supported catalyst whose support (S) is selected from the group consisting of Al₂O₃, aluminosilicates, Ga₂O₃, SiO₂, GeO₂, TiO₂, ZrO₂, SnO₂ and mixtures of the abovementioned compounds.
7. (Currently Amended) A process as claimed in any of claims Claim 4 to 6, wherein the supported catalyst is prepared by

- a.1) impregnating the support (S) with a solution of a compound of a transition element (step a.1),
- b.1) subsequently drying and then calcining the support (S) which has been impregnated in step a.1) (step b.1),
- c.1) heating the support (S) from step b.1 at from 550 to 1 000°C in an atmosphere comprising a hydrocarbon compound and hydrogen (step c.1)

8. (Currently Amended) A process as claimed in ~~any of claims~~ Claim 4 to 7, wherein the ~~heterogeneous catalyst used is a supported catalyst which is obtainable prepared by~~

- a.2) applying a carbide or oxycarbide of a transition element to a customary support so as to produce a catalyst precursor (a.2) (step a.2),
- b.2) bringing the catalyst precursor (a.2) into contact with a hydrocarbon compound at from -20 to 550°C (step b.2) and
- c.2) heating the catalyst precursor from step (b.2) at from 410 to 850°C in an inert gas atmosphere (step c.2).

9. (Currently Amended) A process as claimed in ~~any of claims~~ Claim 4 to 8, wherein a said hydrocarbon compound is selected from the group consisting of C1-C20-alkanes, -cycloalkanes, -olefins, -cycloolefins, -alkynes, -cycloalkynes, aromatics and mixtures of the abovementioned compounds ~~is used in step (b.2)~~.

10. (Currently Amended) A process as claimed in ~~any of claims~~ 4 to 9 Claim 8, wherein ~~an~~ said inert gas is selected from the group consisting of nitrogen, carbon dioxide and noble gases and mixtures thereof ~~is used in step c.2~~.

11. (New) A process as claimed in Claim 1, wherein said compound (B) is selected from the group consisting of hydrocarbons having from 2 to 12 carbon atoms, and mixtures thereof.

12. (New) A process as claimed in Claim 1, wherein said process is a process for preparing propene by metathesis of a mixture comprising 2-butene and ethylene or 1-butene and 2-butenes.

13. (New) A process as claimed in Claim 1, wherein said process is a process for preparing 3-hexane and ethylene by metathesis of 1-butene.

14. (New) A process as claimed in Claim 1, wherein said process is carried out continuously in the gas phase at a temperature from 100 to 500°C and a pressure of 5-50 bar.

15. (New) A process as claimed in Claim 14, wherein the WHSV over the catalyst is 1 to 30 g of compound (B) per g of catalyst per h.

16. (New) A process as claimed in Claim 1, wherein said compound (B) is a raffinate II.

17. (New) A process as claimed in Claim 16, wherein said raffinate II has a butene content of from 30 to 100% by weight.

18. (New) A process as claimed in Claim 16, wherein said raffinate II has a butene content of from 40 to 98% by weight.

19. (New) A process as claimed in Claim 16, wherein said process is carried out continuously in the gas phase at a temperature from 100 to 500°C and a pressure of 5-50 bar.

20. (New) A process as claimed in Claim 19, wherein the WHSV over the catalyst is 1 to 30 g of compound (B) per g of catalyst per h.